

Formerly there were white slaves in almost every country. Afterwards, when white slaves were not allowed by law, people went and stole black men from their homes and families, and carried them to places so far from their homes that they could never get back again, and made them work for them. And it is very lately that a law has been made that there shall be no more slavery.

6. Ka whakatika te taua a Te Rangīta ki te ngaki i te mate o tona taokete, ka tika ma te huarahi e ahu ana ki Waikato. E toru nga ra ki te huarahi ka tae ki tetahi awa nui. E waipuke ana te awa ra, a i te mea he awa hohonu, whanui hoki, ka tahuri te ope ki te hanga mokihi hei whakawhiti i a ratou. Ka oti nga mokihi, heoi, whiti pai ana te taua, kaore he tangata o ratou i riro i te wai, notemea he mohio katoa ratou ki te kau. Katahi ka haere tonu te ope ra, ka tae ki tetahi ngaherehere; ka tomo i te ngaherehere, no te putanga ki tera whaitua ka tutaki i te tira e haere mai ana, he Pakeha tetahi o taua tira. I te mea he tauhou te ope taua ki tenei mea ki te Pakeha, tahuri ana ratou ki te matakitaki i taua tangata. Ka mutu ta ratou matakitaki ka uia te whenua o tera tu tangata, ka whakahokia atu ko Ingarangi. Tukuna ana taua Pakeha me ona hoa kia haere. Maro tonu te haere a te ope taua i tona huarahi, a ka tae ki te pa o te iwi o Waikato. Rokohanga atu e pae ana te iwi ra i waho o te pa. Whakaeke tonutia atu te pa e te taua, horo ana te pa a whati ana nga tangata o roto. Katahi ka patua te iwi ra e te taua a kore rawa he morehu i rere. Heoi ano, i te mea kua ea te mate o tona taokete, hoki ana te taua a Te Rangīta ki tona whenua i haere mai ai.

Trigonometry.—For Senior Civil Service. Time allowed: 3 hours.

1. Define the unit of circular measure, and find its value in degrees.
Express in circular measure the interior angle of a regular dodecagon. What number will express the same angle if the unit of measure is the interior angle of a regular hexagon?

2. Find the numerical value of $\cos 30^\circ$, and deduce the value of $\cos 15^\circ$. Set down all the angles between 0° and 500° the sines of which are equal to $\cos 15^\circ$.

3. Prove the following relations:—

$$(a) \cos(A + B) = \cos A \cos B - \sin A \sin B;$$

$$(b) \cos 3A = 4 \cos^3 A - 3 \cos A;$$

$$(c) \tan\left(45^\circ + \frac{A}{2}\right) + \cot\left(45^\circ + \frac{A}{2}\right) = 2 \sec A;$$

$$(d) \frac{4 \tan A (1 - \tan^2 A)}{(1 + \tan^2 A)^2} = \sin 4A.$$

4. Find the value of A from the equation—

$$\tan(45^\circ + A) = 3 \tan(45^\circ - A).$$

5. If A is an angle of a triangle, find an expression for $\sin \frac{1}{2}A$ in terms of the sides. Find also an expression for the area of the triangle in terms of the sides.

6. Show that in any triangle, adopting the usual notation—

$$(a) \frac{\sin(A - B)}{\sin(A + B)} = \frac{a^2 - b^2}{c^2};$$

$$(b) \sin C (\cot A - \cot B) = \frac{b^2 - a^2}{ab};$$

$$(c) \sin A + \sin B - \sin C = 4 \sin \frac{A}{2} \sin \frac{B}{2} \cos \frac{C}{2}.$$

7. If in a triangle $a = 6$, $b = 7$, $c = 9$, find $\cos A$, $\tan \frac{1}{2}A$, and the area.

8. Prove that $\log \frac{1}{m} = -\log m$, and that $\log m^n = n \log m$.

Given $\log 2 = 0.301$, find the logarithms of 160, 0.32, 1.25, and $\sin 45^\circ$. What is the logarithm of $\sin 45^\circ$ to base 2?

9. A surveyor, desiring to find the height of a mountain, chose two stations in a line with the top of the mountain. The distance between the two stations was 100 chains, and at the nearer station the elevation of the mountain was observed to be 60° . At the more distant station the elevation of the top of the mountain was found to be 30° , and that of the other station 15° : what was the height of the mountain?

Shorthand.—For Senior Civil Service. Time allowed: 3 hours.

INSTRUCTIONS TO SUPERVISORS.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil as they please for taking notes, which should be written on ruled paper, but that they must transcribe those notes into longhand with pen and ink.

2. Inform candidates that when once you have begun to dictate you cannot stop until the passage is finished.

3. Dictate the passages at the following rates of speed:—

(a.) 80 words a minute.

(b.) 120 " "

(c.) 150 " "

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a watch or clock, so as to accustom yourself to reading at the exact rate indicated. The matter to be read is marked off into sections, each of which is to occupy a minute. The Supervisor will